

CLAIMS:

1. A fuel cell system including a fuel cell (20), electric power storing means (30), and electric power supplying means (50, 20a, 30a) for supplying electric power to a load from the fuel cell and the electric power storing means, characterized in that

the electric power supplying means (50, 20a, 30a) includes intermittent operation means (50) for stopping operation of the fuel cell (20) when an amount of electric power required by the load is smaller than a reference value, and starting the stopped operation of the fuel cell (20) when the amount of electric power required by the load is equal to or larger than the reference value, and threshold value adjusting means (50) for adjusting the reference value according to internal electromotive force (Vocv) in the fuel cell (20) whose operation has been stopped.

2. The fuel cell system according to claim 1, characterized in that the threshold value adjusting means (50) decreases the reference value according to a decrease in the internal electromotive force (Vocv) in the fuel cell (20) such that a time at which the operation of the fuel cell (20) is started is relatively advanced.

3. The fuel cell system according to claim 1, characterized in that the threshold value adjusting means (50) stores data related to the reference value that needs to be set according to the internal electromotive force (Vocv) in the fuel cell (20).

4. The fuel cell system according to claim 1, characterized in that

the reference value includes a first reference value (Ps) and a second reference value (Pon) that is larger than the first reference value (Ps); the intermittent operation means (50) stops the operation of the fuel cell (20) when the amount of electric power required by the load is smaller than the first reference value (Ps), and starts the stopped operation of the fuel cell (20) when the amount of electric power required by the load is equal to or larger than the second reference value (Pon); and the threshold adjusting means (50) adjusts the second reference value (Pon) according to the internal electromotive force (Vocv) in the fuel cell (20) whose operation has been stopped.

5. The fuel cell system according to claim 4, characterized in that the threshold value adjusting means (50) decreases the second reference value (Pon) according to a decrease in

the internal electromotive force (V_{ocv}) in the fuel cell (20) such that a time at which the operation of the fuel cell (20) is started is relatively advanced.

6. The fuel cell system according to claim 4, characterized in that the threshold value adjusting means (50) stores data related to the second reference value (P_{on}) that needs to be set according to the internal electromotive force (V_{ocv}) in the fuel cell (20).

7. The fuel cell system according to claim 1, characterized in that the electric power storing means (30) includes at least one of a secondary battery and a capacitor.

8. An electric vehicle including a motor (32) that generates power for the vehicle, and a fuel cell system that includes electric power supplying means (50, 20a, 30a) for supplying electric power to the motor (32) from a fuel cell (20) and electric power storing means (30), characterized in that

the electric power supplying means (50, 20a, 30a) includes intermittent operation means (50) for stopping operation of the fuel cell (20) when an amount of electric power required by the load including the motor (32) is smaller than a reference value, and starting the stopped operation of the fuel cell (20) when the amount of electric power required by the load is equal to or larger than the reference value, and threshold adjusting means (50) for adjusting the reference value according to internal electromotive force (V_{ocv}) in the fuel cell (20) whose operation has been stopped.

9. The electric vehicle according to claim 8, characterized in that

the reference value includes a first reference value (P_s) and a second reference value (P_{on}) that is larger than the first reference value (P_s); the intermittent operation means (50) stops the operation of the fuel cell (20) when the amount of electric power required by the load is smaller than the first reference value (P_s), and starts the stopped operation of the fuel cell (20) when the amount of electric power required by the load is equal to or larger than the second reference value (P_{on}); and the threshold adjusting means (50) adjusts the second reference value (P_{on}) according to the internal electromotive force (V_{ocv}) in the fuel cell (20) whose operation has been stopped.